Amendments to the Claims

Kindly amend claims 1, 5, 6, 8, 9, 11, 13-16 & 18-20, and cancel claims 2-4, 10, 12 & 17 (without prejudice), as set forth below. All pending claims are reproduced below, with changes in the amended claims shown by underlining (for added matter) and strikethrough/double brackets (for deleted matter).

1. (Currently Amended) A thermal dissipation assembly comprising:

a first liquid cooling subsystem disposed substantially within an electronics drawer and positioned to extract heat from a heat generating component within the electronics drawer, said first liquid cooling subsystem including a first fluid cold plate with a first planar heat transfer surface, the first fluid cold plate being a heat rejection cold plate;

a second liquid cooling subsystem disposed substantially external to the electronics drawer, said second liquid cooling subsystem including a second fluid cold plate with a second planar heat transfer surface; [[and]]

wherein at least one of the first fluid cold plate and the second fluid cold plate moves in a horizontal direction relative to the electronics drawer as the electronics drawer is slid horizontally into a docked position in an electronics rack, and wherein the first planar heat transfer surface of the first fluid cold plate and the second planar heat transfer surface of the second fluid cold plate are each disposed perpendicular to the sliding direction of the electronics drawer as the electronics drawer is slid into the docked position in the electronics rack; and

a spring biasing mechanism for mechanically forcing the at least one moveable first fluid cold plate or second fluid cold plate into physical contact with the other of the first fluid cold plate and the second fluid cold plate, with the first planar heat transfer surface and the second planar heat transfer surface ~~coplanar~~ engaging when the electronics drawer is in [[a]] the docked position in [[an]] the electronics rack to facilitate the transfer of heat from the first liquid cooling subsystem to the second liquid cooling subsystem, and wherein the spring biasing mechanism compresses in the sliding direction as the electronics drawer is slid into the docked position, thereby applying a biasing force against the at least one moveable first fluid cold plate or second fluid cold plate that is perpendicular to the first planar heat transfer surface and the second planar heat transfer surface when the electronics drawer is docked.

2. (Canceled).

3. (Canceled).

4. (Canceled).

5. (Currently Amended) The thermal dissipation assembly of claim [[4]] 1, wherein the heat generating component comprises an electronics module disposed within the electronics drawer, and the first liquid cooling subsystem includes a module cold plate coupled to the electronics module and a pump for moving coolant between the module cold plate and the first cold plate to facilitate extraction of heat from the electronics module and dissipation of the heat to the second cold plate of the second liquid cooling subsystem when the electronics drawer is docked and the electronics module is operational.

6. (Currently Amended) The thermal dissipation assembly of claim 5, ~~wherein the biasing mechanism comprises a spring biasing mechanism disposed between a~~ further comprising an L-shaped pressure plate affixed to the electronics drawer, and wherein the spring biasing mechanism is disposed between the L-shaped pressure plate and the first cold plate~~, wherein the first cold plate reciprocates perpendicular to the first planar heat transfer surface thereof with docking and undocking of the electronics drawer in the electronics rack~~.

7. (Canceled).

8. (Currently Amended) The thermal dissipation assembly of claim 1, wherein the first liquid cooling subsystem further comprises an evaporator heat transfer block positioned to extract heat from the heat generating component, ~~a condenser heat transfer block including said first planar heat transfer surface,~~ and at least one heat pipe interconnecting the evaporator heat transfer block and the ~~condenser heat transfer block~~ first fluid cold plate for transferring heat from the heat generating component to the first planar heat transfer surface of the ~~condenser heat transfer block~~ first fluid cold plate.

9. (Currently Amended) The thermal dissipation assembly of claim 8, wherein the ~~condenser heat transfer block~~ first fluid cold plate is mechanically fixed relative to the electronics drawer, and the spring biasing mechanism applies [[a]] the biasing force to the second ~~planar heat transfer surface~~ fluid cold plate when the electronics drawer is in the docked position in the electronics rack, and wherein the second fluid cold plate reciprocates relative to the sliding direction of the electronics drawer as the electronics drawer is docked in and undocked from the electronics rack.

10. (Canceled).

11. (Currently Amended) A cooled multi-drawer electronics rack comprising;

a plurality of electronics drawers, at least one electronics drawer of the plurality of electronics drawers having a thermal dissipation assembly comprising:

a first liquid cooling subsystem disposed substantially within an electronics drawer and positioned to extract heat from a heat generating component within the electronics drawer, said first liquid cooling subsystem including a first fluid cold plate with a first planar heat transfer surface, the first fluid cold plate being a heat rejection cold plate;

a second liquid cooling subsystem disposed substantially external to the electronics drawer, said second liquid cooling subsystem including a second fluid cold plate with a second planar heat transfer surface; [[and]]

wherein at least one of the first fluid cold plate and the second fluid cold plate moves in a horizontal direction relative to the electronics drawer as the electronics drawer is slid horizontally into a docked position in an electronics rack, and wherein the first planar heat transfer surface of the first fluid cold plate and the second planar heat transfer surface of the second fluid cold plate are each disposed perpendicular to the sliding direction of the electronics drawer as the electronics drawer is slid into the docket position in the electronics rack; and

a spring biasing mechanism for mechanically forcing the at least one moveable first fluid cold plate or second fluid cold plate into physical contact with the other of the first fluid cold plate and the second fluid cold plate with the first planar heat transfer surface and the second planar heat transfer surface ~~coplanar~~ engaging when the electronics drawer is in [[a]] the docked position in [[an]] the electronics rack to facilitate the transfer of heat from the first liquid cooling subsystem to the second liquid cooling subsystem, and wherein the spring biasing mechanism compresses in the sliding direction as the electronics drawer is slid into the docked position, thereby applying a biasing force against the at least one moveable first fluid cold plate or second fluid cold plate that is perpendicular to the first planar heat transfer surface and the second planar heat transfer surface when the electronics drawer is docked.

12. (Canceled).

13. (Currently Amended) The cooled multi-drawer electronics rack of claim 11, wherein the heat generating component comprises an electronics module disposed within the at least one electronics drawer, and the first liquid cooling subsystem includes a module cold plate coupled to the electronics module and a pump for moving coolant between the module cold plate and ~~a heat rejection~~ the first fluid cold plate to facilitate extraction of heat from the electronics module and dissipation of the heat to the second liquid cooling subsystem when the at least one electronics drawer is docked in the multi-drawer electronics rack~~, wherein the first planar heat transfer surface comprises a main planar surface of the heat rejection cold plate~~.

14. (Currently Amended) The cooled multi-drawer electronics rack of claim 11, wherein the first liquid cooling subsystem further comprises an evaporator heat transfer block positioned to extract heat from the heat generating component, ~~a condenser heat transfer block including the first planar heat transfer surface,~~ and at least one heat pipe interconnecting the evaporator heat transfer block and the ~~condenser heat transfer block~~ first fluid cold plate for transferring heat from the heat generating component to the first planar heat transfer surface of the ~~condenser heat transfer block~~ first fluid cold plate.

15. (Currently Amended) The cooled multi-drawer electronics rack of claim 14, wherein the ~~condenser heat transfer block~~ first fluid cold plate is mechanically fixed relative to the at least one electronics drawer, and the spring biasing mechanism applies [[a]] the biasing force to the second ~~planar heat transfer surface~~ fluid cold plate when the at least one electronics drawer is in the docked position in the multi-drawer electronics rack, and wherein the second fluid cold plate reciprocates relative to the sliding direction of the electronics drawer as the electronics drawer is docked in and undocked from the electronics rack.

16. (Currently Amended) A method of fabricating a thermal dissipation assembly for an electronics drawer of an electronics rack, said method comprising:

providing a first liquid cooling subsystem disposed substantially within the electronics drawer and positioned to extract heat from a heat generating component of the electronics drawer, the first liquid cooling subsystem including a first fluid cold plate with a first planar heat transfer surface, the first fluid cold plate being a heat rejection cold plate;

disposing external to the electronics drawer, at least partially within the electronics rack, a second liquid cooling subsystem, the second liquid cooling subsystem including a second fluid cold plate with a second planar heat transfer surface; [[and]]

wherein at least one of the first fluid cold plate and the second fluid cold plate moves in a horizontal direction relative to the electronics drawer as the electronics drawer is slid horizontally into a docked position in an electronics rack, and wherein the first planar heat transfer surface of the first fluid cold plate and the second planar heat transfer surface of the second fluid cold plate are each disposed perpendicular to the sliding direction of the electronics drawer; and

spring biasing ~~at least one of~~ the at least one moveable first fluid cold plate or second fluid cold plate for mechanically forcing the at least one moveable first fluid cold plate or second fluid cold plate into physical contact with the other of the first fluid cold plate and the second fluid cold plate, with the first planar heat transfer surface and the second planar heat transfer surface ~~so that~~ engaging when the electronics drawer is in [[a]] the docked position in the electronics rack~~, the first planar heat transfer surface and the second planar heat transfer surface are forced coplanar~~ to facilitate transfer of heat from the first liquid cooling subsystem to the second liquid cooling subsystem, and wherein the spring biasing mechanism compresses in the sliding direction as the electronics drawer is slid into the docked position, thereby applying a biasing force against the at least one moveable first fluid cold plate or second fluid cold plate that is perpendicular to the first planar heat transfer surface and the second planar heat transfer surface when the electronics drawer is docked.

17. (Canceled).

18. (Currently Amended) The method of claim 17, wherein the heat generating component comprises an electronics module disposed within the electronics drawer, and the first liquid cooling subsystem includes a module cold plate coupled to the electronics module and a pump for moving coolant between the module cold plate and ~~a heat rejection~~ the first fluid cold plate to facilitate extraction of heat from the electronics module and dissipation of the heat to the second liquid cooling subsystem when the electronics drawer is docked in the electronics rack~~, wherein the first planar heat transfer surface comprises a main planar surface of the heat rejection cold plate~~.

19. (Currently Amended) The method of claim 16, wherein the first liquid cooling subsystem further comprises an evaporator heat transfer block positioned to extract heat from the heat generating component, ~~a condenser heat transfer block including the first planar heat transfer surface,~~ and at least one heat pipe interconnecting the evaporator heat transfer block and the ~~condenser heat transfer block~~ first fluid cold plate for transferring heat from the heat generating component to the first planar heat transfer surface of the ~~condenser heat transfer block~~ first fluid cold plate.

20. (Currently Amended) The method of claim 19, wherein the ~~condenser heat transfer block~~ first fluid cold plate is mechanically fixed to the electronics drawer, and the spring biasing comprises providing [[a]] the biasing force ~~which is perpendicular~~ to the second ~~planar heat transfer surface~~ fluid cold plate when the electronics drawer is in the docked position in the electronics rack, and wherein the second fluid cold plate reciprocates relative to the sliding direction of the electronics drawer as the electronics drawer is docked in and undocked from the electronics rack.

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